

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

LISTING OF CLAIMS

Claim 1 (cancelled).

Claim 2 (cancelled).

Claim 3 (cancelled).

Claim 4 (Currently Amended) ~~The threading tap according to claim 3,~~ A threading tap for cutting threads in blind holes, comprising an elongated body defining an axis of rotation and including axial front and rear end regions, the front end region including a threading portion having teeth defining a helical thread-cutting structure, and at least one helical flute formed in an outer periphery of the body and interrupting the thread-cutting structure, the at least one flute comprising interconnected flanks having exposed surfaces that are steam tempered wherein the a helix angle of the flute relative to the axis is 48°.

Claim 5 (cancelled).

Claim 6 (Currently Amended) ~~The threading tap according to claim 5~~ A threading tap for cutting threads in blind holes, comprising an elongated body defining an axis of rotation and including axial front and rear end regions, the front end region including a threading portion having teeth defining a helical thread-cutting structure, and at least one helical flute formed in an outer periphery of the body and interrupting the thread-cutting structure, the at least one flute comprising interconnected flanks having exposed surfaces that are steam

tempered wherein the thread-cutting structure is chamfered at a rear portion thereof and

wherein the chamfered portion forms an angle in the range of 8° - 11° relative to the axis.

Claim 7 (cancelled).

Claim 8 (cancelled).

Claim 9 (cancelled).

Claim 10 (cancelled).

Claim 11 (cancelled).

Claim 12 (cancelled)

Claim 13 (cancelled).

Claim 14 (cancelled).

Claim 15 (cancelled).

Claim 16 (cancelled)

Claim 17 (cancelled).

Claim 18 (cancelled).

Claim 19 (cancelled)

Claim 20 (cancelled).

Claim 21 (Currently Amended) ~~The method according to claim 15~~ A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

- A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;
- B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces; and
- C) steam tempering the exposed surfaces and wherein the at least one flute is formed such that the helix angle of the flute is 48°.

Claim 22 (cancelled)

Claim 23 (Currently Amended) ~~The method according to claim 22,~~ A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

- A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;
- B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces;

C) steam tempering the exposed surfaces and wherein the thread-cutting structure has a chamfer at a rear section thereof, a taper angle of the chamfer is being between 8° and 11°.

Claim 24 (cancelled).

Claim 25 (cancelled).

Claim 26 (cancelled)

Claim 27 (cancelled).

Claim 28 (Currently Amended) ~~The method according to claim 15,~~ A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

- A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;
- B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces;
- C) steam tempering the exposed surfaces, wherein the steam tempering is performed at a temperature between 500°C and 540°C.

Claim 29 (Currently Amended) ~~The method according to claim 15,~~ A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;

B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces;

C) steam tempering the exposed surfaces, wherein the steam tempering is performed with nitrogen (N₂) and carbon dioxide (CO₂).

Claim 30 (Currently Amended) ~~The method according to claim 15,~~ A method of manufacturing a threading tap suitable for cutting threads in blind holes, including the following steps:

A) selecting a blank comprising an elongated body defining an axis of rotation and including axial front and rear regions;

B) forming at least one helical flute in an outer periphery of the body, the at least one flute comprising interconnected flanks having exposed surfaces; and

C) steam tempering the exposed surfaces, wherein the steam tempering is performed with nitrogen (N₂) and water steam (H₂O).